

ECONOMICS AND STATISTICS ADMINISTRATION

**U.S. CENSUS BUREAU** 

For Wire Transmission 10:00 a.m. ET January 9, 2003

CB03-04

## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES NOVEMBER 2002

Sales. November 2002 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$235.7 billion, up 1.2 percent (+/-0.6%) from the revised October level, and were up 6.2 percent (+/-0.9%) from the November 2001 level. The October preliminary estimate was revised upward \$0.3 billion or 0.1 percent. Among durable goods, sales of motor vehicle and motor vehicle parts and supplies increased 3.4 percent from October, while sales of metals and minerals, except petroleum, decreased 4.8 percent. Sales of nondurable goods increased 1.6 percent (+/-0.8%) from last month and were up 10.4 percent (+/-1.4%) from last year. Compared to last month, sales of farm product raw materials increased 7.4 percent and apparel, piece goods, and notions increased 5.0 percent.

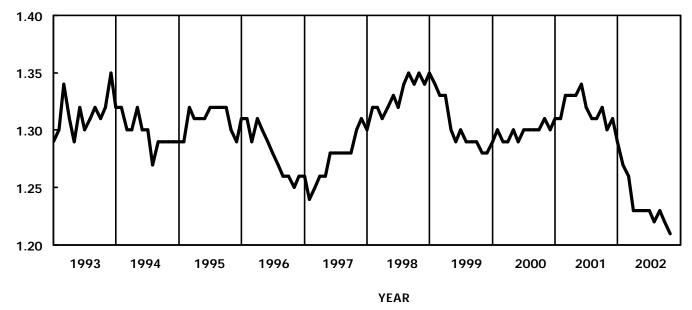
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$284.5 billion at the end of November, up 0.2 percent (+/-0.3%) from last month, but were down 1.7 percent (+/-0.8%) from a year ago. The October preliminary estimate was revised downward \$0.5 billion or 0.2 percent. Among durable goods, inventories of motor vehicle and motor vehicle parts and supplies were up 2.3 percent from last month. Among nondurable goods, inventories of chemicals and allied products increased 1.9 percent from October and inventories of beer, wine, and distilled alcoholic beverages were up 1.5 percent.

Inventories/Sales Ratio. The November inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.21. The November 2001 ratio was 1.30.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling error. A discussion of the reliability of the estimates and general survey methodology appears in BW/01-A Current Business Reports.

RATIO

Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1993 to 2002 (Estimates adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for December is scheduled to be released February 7, 2003 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Nancy Piesto, (301) 763-2747.

This report is available on day of issue through the Department of Commerce's STAT-USA website; for information, call (202) 482-1986. The data are also available on the internet - <a href="http://www.census.gov/whl.">http://www.census.gov/whl.</a>

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers

[Total sales and inventory estimates are shown in millions of dollars. Estimates are based on data from the Monthly Wholesale Trade Survey, Annual Wholesale Trade Survey, and administrative records. Except for NAICS code 4225, estimates have been adjusted using results of the most

recent economic census.]

NAICS   Kind of Business   Nov.   Oct.   O	Nov. 2001 (r) 1.30 1.57 1.42 1.53	
NAICS¹ Kind of Business	2001 (r) 1.30 1.57 1.42 1.53	
code   Business   2002 (p)   2002 (r)   2001 (r)   Oct. Sep.   Nov. 01   2002 (p)   2002 (p)   2002 (p)   2001 (r)   Oct. Sep.   Nov. 01   2002 (p)   2002 (p)   2001 (r)   Oct. Sep.   Nov. 01   2002 (p)   2002 (p) <th< td=""><td>2001 (r) 1.30 1.57 1.42 1.53</td></th<>	2001 (r) 1.30 1.57 1.42 1.53	
Adjusted²   U.S. Total   235,672   232,891   221,978   1.2   0.0   6.2   284,491   283,971   289,458   0.2   -0.5   -1.7   1.21   1.22     421   Durable   114,144   113,332   111,941   0.7   -1.0   2.0   169,819   169,368   175,818   0.3   -0.1   -3.4   1.49   1.49     4211   Automotive   18,028   17,430   17,111   3.4   -1.9   5.4   25,294   24,718   24,223   2.3   2.6   4.4   1.40   1.42     4212   Furniture   3,503   3,430   3,545   2.1   -0.3   -1.2   5,186   5,182   5,431   0.1   -0.6   -4.5   1.48   1.51     4213   Lumber   6,526   6,682   6,311   -2.3   -1.4   3.4   6,751   6,747   6,744   0.1   0.0   0.1   1.03   1.01     4214   Prof. equip.   22,636   22,329	1.30 1.57 1.42 1.53	
42   U.S. Total   235,672   232,891   221,978   1.2   0.0   6.2   284,491   283,971   289,458   0.2   -0.5   -1.7   1.21   1.22     421   Durable   114,144   113,332   111,941   0.7   -1.0   2.0   169,819   169,368   175,818   0.3   -0.1   -3.4   1.49   1.49     4211   Automotive   18,028   17,430   17,111   3.4   -1.9   5.4   25,294   24,718   24,223   2.3   2.6   4.4   1.40   1.42     4212   Furniture   3,503   3,430   3,545   2.1   -0.3   -1.2   5,186   5,182   5,431   0.1   -0.6   -4.5   1.48   1.51     4213   Lumber   6,526   6,682   6,311   -2.3   -1.4   3.4   6,751   6,747   6,744   0.1   0.0   0.1   1.03   1.01     4214   Prof. equip.   22,636   22,329   21,559<	1.57 1.42 1.53	
421   Durable   114,144   113,332   111,941   0.7   -1.0   2.0   169,819   169,368   175,818   0.3   -0.1   -3.4   1.49   1.49     4211   Automotive   18,028   17,430   17,111   3.4   -1.9   5.4   25,294   24,718   24,223   2.3   2.6   4.4   1.40   1.42     4212   Furniture   3,503   3,430   3,545   2.1   -0.3   -1.2   5,186   5,182   5,431   0.1   -0.6   -4.5   1.48   1.51     4213   Lumber   6,526   6,682   6,311   -2.3   -1.4   3.4   6,751   6,747   6,744   0.1   0.0   0.1   1.03   1.01     4214   Prof. equip.   22,636   22,329   21,559   1.4   -1.4   5.0   22,655   22,627   23,132   0.1   -2.4   -2.1   1.00   1.01     42143   Comp. equip.   11,510   11,688   11,537<	1.57 1.42 1.53	
4211 Automotive 18,028 17,430 17,111 3.4 -1.9 5.4 25,294 24,718 24,223 2.3 2.6 4.4 1.40 1.42   4212 Furniture 3,503 3,430 3,545 2.1 -0.3 -1.2 5,186 5,182 5,431 0.1 -0.6 -4.5 1.48 1.51   4213 Lumber 6,526 6,682 6,311 -2.3 -1.4 3.4 6,751 6,747 6,744 0.1 0.0 0.1 1.03 1.01   4214 Prof. equip. 22,636 22,329 21,559 1.4 -1.4 5.0 22,655 22,627 23,132 0.1 -2.4 -2.1 1.00 1.01   42143 Comp. equip. 11,510 11,688 11,537 -1.5 -2.7 -0.2 7,675 7,786 8,442 -1.4 -4.8 -9.1 0.67 0.67	1.42 1.53	
4212 Furniture 3,503 3,430 3,545 2.1 -0.3 -1.2 5,186 5,182 5,431 0.1 -0.6 -4.5 1.48 1.51   4213 Lumber 6,526 6,682 6,311 -2.3 -1.4 3.4 6,751 6,747 6,744 0.1 0.0 0.1 1.03 1.01   4214 Prof. equip. 22,636 22,329 21,559 1.4 -1.4 5.0 22,655 22,627 23,132 0.1 -2.4 -2.1 1.00 1.01   42143 Comp. equip. 11,510 11,688 11,537 -1.5 -2.7 -0.2 7,675 7,786 8,442 -1.4 -4.8 -9.1 0.67 0.67	1.53	
4212 Furniture 3,503 3,430 3,545 2.1 -0.3 -1.2 5,186 5,182 5,431 0.1 -0.6 -4.5 1.48 1.51   4213 Lumber 6,526 6,682 6,311 -2.3 -1.4 3.4 6,751 6,747 6,744 0.1 0.0 0.1 1.03 1.01   4214 Prof. equip. 22,636 22,329 21,559 1.4 -1.4 5.0 22,655 22,627 23,132 0.1 -2.4 -2.1 1.00 1.01   42143 Comp. equip. 11,510 11,688 11,537 -1.5 -2.7 -0.2 7,675 7,786 8,442 -1.4 -4.8 -9.1 0.67 0.67	1.53	
4214 Prof. equip. 22,636 22,329 21,559 1.4 -1.4 5.0 22,655 22,627 23,132 0.1 -2.4 -2.1 1.00 1.01 42143 Comp. equip. 11,510 11,688 11,537 -1.5 -2.7 -0.2 7,675 7,786 8,442 -1.4 -4.8 -9.1 0.67 0.67	1 07	
42143 Comp. equip. 11,510 11,688 11,537 -1.5 -2.7 -0.2 7,675 7,786 8,442 -1.4 -4.8 -9.1 0.67 0.67	1.07	
	1.07	
4215   Metals   7,296   7,662   7,352   -4.8   0.8   -0.8   12,898   12,755   12,382   1.1   -0.8   4.2   1.77   1.66	0.73	
	1.68	
4216   Electrical   17,714   17,251   18,044   2.7   -0.2   -1.8   23,551   23,741   24,915   -0.8   0.5   -5.5   1.33   1.38	1.38	
4217   Hardware   5,195   5,232   5,422   -0.7   -1.7   -4.2   9,885   9,914   10,301   -0.3   -0.8   -4.0   1.90   1.89	1.90	
4218 Machinery   19,090   19,679   20,358   -3.0   -3.3   -6.2   44,117   44,091   48,135   0.1   -0.8   -8.3   2.31   2.24	2.36	
4219 Misc. Durable   14,156   13,637   12,239   3.8   3.1   15.7   19,482   19,593   20,555   -0.6   0.7   -5.2   1.38   1.44	1.68	
422   Nondurable   121,528   119,559   110,037   1.6   1.0   10.4   114,672   114,603   113,640   0.1   -1.0   0.9   0.94   0.96	1.03	
4221 Paper 6,320 6,244 6,218 1.2 0.3 1.6 6,066 5,999 6,368 1.1 -0.6 -4.7 0.96 0.96	1.02	
4222 Drugs   19,500 18,942 17,163 2.9 0.4 13.6 27,740 27,811 27,531 -0.3 0.9 0.8 1.42 1.47	1.60	
4223 Apparel 7,192 6,851 6,794 5.0 -0.9 5.9 12,411 12,544 12,979 -1.1 -3.5 -4.4 1.73 1.83	1.91	
4224 Groceries 35,751 35,638 33,813 0.3 0.4 5.7 22,142 22,298 21,100 -0.7 -0.5 4.9 0.62 0.63	0.62	
4225 Farm products 10,618 9,883 8,419 7.4 3.6 26.1 9,394 9,220 10,037 1.9 -6.8 -6.4 0.88 0.93	1.19	
4226 Chemicals 5,052 5,073 4,824 -0.4 -2.7 4.7 6,286 6,166 6,113 1.9 0.3 2.8 1.24 1.22	1.27	
4227 Petroleum 16,666 16,826 12,615 -1.0 5.8 32.1 4,444 4,426 4,269 0.4 -6.8 4.1 0.27 0.26	0.34	
4228 Alcohol 6,490 6,366 6,156 1.9 -1.0 5.4 6,952 6,847 6,274 1.5 1.6 10.8 1.07 1.08 4229 Misc. Nondur. 13,939 13,736 14,035 1.5 -0.3 -0.7 19,237 19,292 18,969 -0.3 0.4 1.4 1.38 1.40	1.02 1.35	
'		
Not ridusted	2001	
42 U.S. Total 229,281 249,038 221,186 -7.9 7.7 3.7 287,242 286,993 292,197 0.1 1.4 -1.7 2,527,061 2,50		
	•	
	88,019	
	10,336	
	8,301 4,015	
	3,822	
	36,836	
	97,187	
	8,461	
	37,143	
	15,728	
422 Nondurable 119,114 126,927 110,309 -6.2 9.8 8.0 118,246 117,763 117,380 0.4 3.8 0.7 1,275,985 1,2	6,453	
	10,786	
	5,882	
	5,531	
	8,919	
	7,445	
	54,722	
	5,888	
	5,712	
	1,568	

<sup>&</sup>lt;sup>p</sup> Preliminary estimate. <sup>r</sup> Revised.

<sup>&</sup>lt;sup>1</sup> For a full description of the NAICS codes used in this table, see <a href="http://www.census.gov/svsd/www/naicsdef.html">http://www.census.gov/svsd/www/naicsdef.html</a>.

<sup>&</sup>lt;sup>2</sup> Estimates are adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for the seasonal adjustment factors used. Cumulative seasonally adjusted sales estimates are not tabulated.

Note: Estimates have not been adjusted for price changes. Table 2 provides estimated measures of sampling variability. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at <a href="http://www.census.gov/svsd/www/mwtsreliability.html">http://www.census.gov/svsd/www/mwtsreliability.html</a>.

Table 2. Coefficients of Variation and Standard Errors for Sales and Inventories Estimates

[Estimates are shown as percents. Estimates are based on data from the Monthly Wholesale Trade Survey and administrative records.]												
	Kind of Business	Median		its of varia I (%)	ation for	Median	standard	l errors fo	r trend	variation	ients of for level %)	Standard errors for trend
NAICS code		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	to previous year cumulative
42	U.S. Total	1.2	1.6	1.2	1.6	0.4	0.2	0.6	0.5	1.2	1.3	0.3
421	Durable	1.5	1.5	1.5	1.5	0.5	0.3	1.0	0.7	1.4	1.7	0.6
4211	Automotive	3.3	4.5	3.4	4.5	0.9	0.8	1.3	1.8	3.3	3.8	0.9
4212	Furniture	4.6	7.3	4.6	7.3	1.4	0.7	2.9	1.7	4.5	4.0	2.3
4213	Lumber	4.6	6.3	4.6	6.4	1.0	0.6	2.5	2.8	4.6	3.8	1.6
4214	Prof. equip.	5.0	6.2	4.9	6.2	1.2	0.6	2.3	1.8	4.8	4.1	1.5
42143		8.8	6.9	8.4	6.8	2.0	1.1	3.2	3.7	8.6	7.3	2.5
4215	Metals	7.6	9.0	7.6	8.9	1.3	0.7	2.8	3.5	7.1	6.9	2.3
4216	Electrical	3.7	4.9	3.7	4.9	1.2	0.6	1.7	1.7	3.4	3.9	0.8
4217	Hardware	8.0	10.9	8.1	10.8	1.1	0.5	2.4	2.2	7.9	8.0	1.5
4218	Machinery	3.9	3.1	4.0	3.1	1.7	0.5	2.2	1.4	3.4	3.3	1.1
4219	Misc. Durable	5.0	7.7	5.0	7.6	1.8	0.8	2.9	2.4	4.8	5.3	2.1
422	Nondurable	1.8	2.5	1.7	2.6	0.5	0.3	0.9	1.0	1.8	1.5	0.5
4221	Paper	4.3	3.4	4.4	3.4	0.9	0.6	1.2	1.5	4.2	4.8	0.7
4222	Drugs	5.3	5.5	5.3	5.5	0.9	0.4	2.2	2.7	5.3	5.7	1.1
4223	Apparel	5.0	4.8	5.0	4.8	1.8	0.9	3.0	2.6	4.5	4.3	2.0
4224	Groceries	3.2	5.9	3.2	5.8	0.7	0.7	1.6	1.9	3.3	2.9	1.0
4225	Farm products	5.8	10.6	5.9	10.9	1.8	1.7	2.8	3.1	5.8	5.5	1.5
4226	Chemicals	5.3	7.1	5.3	7.1	1.0	0.7	1.8	1.9	5.2	4.9	1.1
4227	Petroleum	5.7	6.8	5.8	6.9	0.7	0.8	1.4	1.9	5.9	5.6	0.9
4228	Alcohol	4.1	5.3	4.1	5.1	0.9	0.7	1.2	1.6	4.0	4.0	0.8
4229	Misc. Nondur.	7.8	8.1	7.8	7.9	2.0	1.2	3.5	1.8	7.5	6.9	2.5

Note: Estimated measures of sampling variability are based on estimates unadjusted for seasonal variation or trading-day differences. Medians are computed using final monthly estimates for the latest 12 months. Additional information on confidentiality protection, sampling error, nonsampling error, sample design, and definitions may be found at www.census.gov/svsd/www/mwtsreliability.html.

## Reliability of Estimates

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the percent change estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is ±1.65 x 0.9% or ±1.5%, and the 90% confidence interval is -0.3% to +2.7%. If the interval contains zero, then we do not have sufficient evidence to conclude the estimated change was statistically different from zero. For monthly totals, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value ±1.65 x CV x (the estimated value).

Nonsampling errors can occur because of nonresponse, insufficient coverage of the universe of wholesale businesses, mistakes in the recording and coding of data, and response errors. Imputed data accounts for approximately 28% of the sales estimates and 31% of the inventories estimates. Additionally, estimates of sales and inventories prior to March 2001 have been restated from SIC-based estimates. The restatement methodology may have introduced additional nonsampling error. The calculated median standard errors of year-to-year change estimates may also be influenced by the methodology used to impute historical data for units in the NAICS sample. The effect of this historic imputation methodology on published estimates will decrease as more data from the NAICS sample is accumulated. Precautionary steps are taken to minimize nonsampling errors, but their magnitude is not directly measured.

Further information regarding the reliability of estimates can be found on the Internet on our web page at http://www.census.gov/svsd/www/mwtsreliability.html.

Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

[Seasonal adjustment factors are computed using the Census Bureau's X-12 ARIMA program and are based on data from the

Monthly Wholesale Trade Survey, Annual Wholesale Trade Survey, and administrative records.]

NAICS	Kind of	Sales						Inventories						
code	Business	2002					2001	2002					2001	
		Dec.	Nov.r	Oct.r	Sep.	Aug.	Nov.r	Dec.	Nov.r	Oct.r	Sep.	Aug.	Nov.r	
42	U.S. Total <sup>1</sup>	0.993	0.971	1.069	0.997	1.023	0.996	1.006	1.011	1.011	0.989	0.984	1.011	
421	Durable	0.977	0.965	1.076	1.013	1.031	0.992	0.985	0.994	0.998	0.998	1.002	0.994	
4211	Automotive	1.010	0.992	1.063	0.949	1.021	1.012	0.992	1.016	1.005	0.983	0.964	1.013	
4212	Furniture	0.956	1.011	1.105	1.031	1.061	1.054	0.978	0.996	1.022	1.036	1.032	0.994	
4213	Lumber	0.840	0.909	1.101	1.001	1.096	0.945	0.962	0.969	0.979	1.000	1.004	0.967	
4214	Prof. equip.	1.058	0.944	1.052	1.065	1.016	0.961	0.990	1.011	1.017	1.000	1.005	1.014	
42143	Comp. equip.	1.073	0.928	1.068	1.113	1.029	0.941	0.982	1.020	1.018	0.999	1.001	1.026	
4215	Metals	0.906	0.925	1.082	0.990	1.049	0.963	1.013	0.991	0.995	1.008	1.006	0.990	
4216	Electrical	0.980	0.983	1.101	1.038	1.031	1.007	0.983	1.003	1.005	1.010	1.019	1.002	
4217	Hardware	0.898	0.950	1.089	0.982	1.048	0.981	0.988	0.980	0.984	1.002	1.011	0.981	
4218	Machinery	0.989	0.929	1.057	0.985	1.008	0.967	0.975	0.979	0.983	0.991	1.007	0.979	
4219	Misc. Durable	0.972	1.032	1.112	1.028	1.052	1.053	0.976	0.996	1.012	1.004	1.015	0.995	
422	Nondurable	1.001	0.977	1.064	0.979	1.014	1.000	1.040	1.035	1.028	0.983	0.958	1.037	
4221	Paper	0.965	0.969	1.085	1.011	1.047	0.993	1.011	1.013	1.001	0.993	0.986	1.011	
4222	Drugs	1.046	0.982	1.061	0.987	0.966	1.017	1.047	1.010	1.022	0.983	0.946	1.009	
4223	Apparel	0.786	0.957	1.142	1.039	1.102	0.972	0.995	0.961	1.002	1.026	1.034	0.962	
4224	Groceries	1.010	0.988	1.040	0.973	1.027	1.005	1.013	1.036	1.040	1.011	0.998	1.038	
4225	Farm products	1.113	1.060	1.147	0.923	0.918	1.078	1.217	1.217	1.127	0.828	0.750	1.229	
4226	Chemicals	0.919	0.928	1.059	0.970	1.035	0.960	1.004	0.994	0.981	0.988	1.000	0.993	
4227	Petroleum	1.003	0.972	1.051	0.974	1.033	0.991	1.037	1.019	1.005	1.000	0.992	1.022	
4228	Alcohol	1.115	1.032	1.082	0.949	1.062	1.069	0.923	1.046	1.069	1.029	0.994	1.046	
4229	Misc. Nondur.	0.994	0.918	1.011	0.983	0.999	0.948	1.043	1.026	1.004	0.960	0.961	1.025	

## r Revised.

Note: The seasonal adjustment factors shown are estimates derived from a model that uses sample survey data as input. Therefore, these estimates may contain model error, sampling error, and nonsampling error. Additional information on the general form of the model and the X-12 ARIMA program may be found at <a href="http://www.census.gov/srd/www/x12a/">http://www.census.gov/srd/www/x12a/</a>.

<sup>&</sup>lt;sup>1</sup>Adjusted sales and inventory estimates for detailed kind-of business levels in Table 1 are computed by dividing each unadjusted estimate by the seasonal adjustment factor for the corresponding kind of business and month. Adjusted estimates for broad kind-of-business levels are obtained by summing adjusted estimates at the appropriate detailed levels. Seasonal factors shown for broad kind-of-business levels may be used to approximate adjusted estimates at these levels, but the resulting estimates may differ slightly from the published estimates.